gate G1, thus affecting frequency stability. The group delay of the low-pass filter created by R3 and the input capacitance of G1 causes the sensitivity to most other errors in the sensor to be increased. The ideal situation is where no delays are added to the signal path. The introduction of R3 also changes the effective threshold voltage (V_{th}) of gate G1. The conventional design has other problems as well. The circuit board that is used to support the electronics and the means used to support the plates of the variable capacitor C1 include dielectric material that contributes to inter-plate capacitance between the nodes of the circuit, especially between plates of the capacitor C1. Because the dielectric constant of the circuit board supports varies with temperature, the conventional sensor is sensitive to changes in temperature.

2. Please replace the second paragraph on page 8 of the Specification with the following amended replacement paragraph:

As embodied herein, and depicted in Figure 3, a cross-sectional view of capacitive pressure sensor 10 in accordance with the present invention is disclosed. Sensor 10 includes metallic conductor layer 18 formed on a surface of circuit board 12. Ground conductor layer 20 is disposed on the opposite surface of circuit board 12. Circuit board 12 also includes dielectric material 22, disposed between conductor layer 18 and ground layer 20. Metal ring 24 is connected to circuit board 12 by pins 38, which are inserted through ring conductor 14. Metal ring 24 receives structural support from support plate 40, which is disposed between circuit board 12 and metal ring 24. Support plate 40 causes conductor layer 18 and the support plane of metal ring 24 to be co-planar, to thereby reduce mechanical tolerance stack-up. Metallic diaphragm 30 is coupled to circuit board 12 by being sandwiched between metal ring 24 and O-ring 26. Thus, metallic diaphragm 30 is disposed over circuit board 12 and juxtaposed to conductor layer 18 to form a variable capacitor. This design feature also has the effect of reducing mechanical tolerance stack-up. Metallic diaphragm 30 is held in place by O-ring 26. O-ring 26 is pressed against metallic diaphragm 30 and metal ring 24 by snap-on cap 32. Snap-on cap 32 includes multiple snaps 36 which fit over the edge of metal ring 24. Snap-on cap 32 also includes pressure port 34. In the embodiment depicted in Figure 3, the electronics (oscillator 50, measurement and processor circuit 70, and reference oscillator 200) of sensor 10 are coupled to the underside of circuit board 12.